

CELL-BASED BIOSENSOR FOR HARMFUL AIRBORNE AGENTS

Abstract Of The Disclosure

A method of monitoring an air atmosphere for a harmful biological or
5 chemical agent includes providing a plurality of mammalian respiratory airway
epithelial cells borne on a porous support; contacting the porous support with
a cell nutrient medium and with air by positioning said porous support at an
air-liquid interface between the cell nutrient liquid and the air; sampling the air
atmosphere to thereby create an air flow over the air-liquid interface so that
10 the respiratory epithelial cells borne on the porous silicone support are
contacted by the sampled air; and monitoring the respiratory epithelial cells for
at least one physiological parameter indicating the cells have been exposed to
the harmful agent.